

1 Remarks

2 Amendments to the claims

3 New claims 25, 26 and 27 have been added, as indicated above. Support for  
4 new claims 25-27 is found at least on page 19, lines 4-7 of the specification as originally  
5 filed. No new matter has been introduced by way of new claims 25-27.  
6

7 Rejection of Claims under 35 U.S.C. § 103(a)

8 Claims 1-4, 6-13, 15 and 16 have been rejected under 35 U.S.C. § 103 as being  
9 unpatentable over the admitted prior art (Applicant's background section) over any one  
10 of U.S. Patent No. 3,664,913 ("Olson"), JP 0805287 ("Osogoshi et al."), or GB 1289387  
11 ("Sendor et al.").

12 The Applicant respectfully disagrees that claims 1-4, 6-13, 15 and 16 are obvious  
13 as asserted above.

14 As a starting point, MPEP 706.02(j) states:

15 "[t]o establish a *prima facie* case of obviousness, three basic criteria  
16 must be met. **First**, there must be some suggestion or motivation, either in  
17 the cited references themselves or in the knowledge generally available to  
18 one of ordinary skill in the art, to modify the reference or to combine the  
19 reference teachings. **Second**, there must be a reasonable expectation of  
20 success. **Finally**, the prior art reference (or references when combined)  
21 must teach or suggest all the claim limitations. The teaching or suggestion  
22 to make the claimed combination and the reasonable expectation of  
23 success must both be found in the prior art and not based on applicant's  
24 disclosure." (Emphasis added.)

25 As set forth in the Applicant's specification, the motivation for developing the  
methods and apparatus of the present invention are two-fold:

1 1) Protecting the integrity of print or imaging underlying a transparent coating  
2 against intrusive prior art binding methods (such as stapling, stitching, etc.) or damage  
3 from environmental elements (moisture, gasses, etc.); and

4 2) Facilitating the fusing or partial fusing of at least one sheet of media to another  
5 sheet of media *after* the printing and the protective coating have been sequentially  
6 respectively provided.

7 Accordingly, one seeking to solve the problem addressed by the Applicant's  
8 claimed invention would not consider references that pertain to any one or more of:

- 9 - any coating that is applied to sheet media prior to imaging of the media; or  
10 - imaging that is not protected by a transparent overlying coating.

11  
12 Arguments in support of Claims 1-4, 6-13, 15-16 and 25-26

13 With regard to Olson, the teachings therein provide for an opaque, heat-fusible  
14 coating composition, that is applied to paper or another substrate prior to any imaging  
15 thereon, wherein the coating composition must be of appropriate porosity (and other  
16 characteristics) so as to accommodate the retention and drying of ink (Abstract; Col. 2,  
17 lines 51-57; Col. 3, lines 70-75; and Col. 4, lines 39-45 of Olson).

18 Olson fails to provide any motivation or reasonable expectation of success for  
19 applying a transparent protective coating overlying an image-bearing sheet of media,  
20 wherein the transparently coated and *protected* sheet of media is then energy-bindable  
21 to another sheet of media. Quite simply, Olson is directed to providing a different  
22 solution to a different problem – namely, providing a type of coated, heat-fusible sheet  
23 media that is capable of retaining and drying (a later applied) ink or other liquid imaging  
24 media.

25 Therefore, one of skill in the relevant art would not consult Olson when faced with  
solving the problems addressed by the present invention, as Olson fails to provide any  
motivation toward, or reasonable expectation of success for, the invention as

1 respectively recited by instant claims 1 and 10. Thus, the respective 103(a) rejections of  
2 claims 1 and 10 are unsupportable under Olson in view of the requirements of MPEP  
3 706.02(j).

4 Regarding Osogoshi et al., the reference provides for a coating that “makes  
5 adhesives and a pigment a principle component” (Osogoshi et al. translation, ¶ 0010,  
6 emphasis added); that “the aforementioned coating constituent five to 20% ... of a  
7 pigment” (Id.); and “[a]s a pigment of the coating constituent used for this invention, well  
8 known pigments for coating, such as whiting, ... is chosen suitably, and is combined and  
9 used.” (Id., at ¶ 0012). Therefore, Osogoshi et al. is directed toward the use of  
10 non-transparent coatings applied to paper (or other media) prior to any imaging thereof.

11 Furthermore, the coatings of Osogoshi et al. are concerned with the absorption,  
12 retention and drying of ink, as well as the nature of the pigment(s) used. This is evident  
13 as Osogoshi et al. recites: “However, the for [which is stuck by pressure] being used here  
14 has the problem of needing the special process for printing such special ink, when it is  
15 necessary to select adhesive good ink exceptionally.” (Id., at ¶ 0004).

16 Osogoshi et al. fail to provide any motivation or reasonable expectation of  
17 success for applying a transparent protective coating overlying an image-bearing sheet  
18 of media, wherein the transparently coated and *protected* sheet of media is then energy-  
19 bindable to another sheet of media. Osogoshi et al. is directed to providing a different  
20 solution to a different problem – namely, providing a coated, heat-fusible sheet media  
21 that is capable of retaining and drying (a later applied) ink or other liquid imaging media.

22 One of skill in the art would not consult Osogoshi et al. when faced with the  
23 problems addressed by the present invention, as Osogoshi et al. fail to provide any  
24 motivation toward, or reasonable expectation of success for, the invention as  
25 respectively recited by instant claims 1 and 10. Thus, the respective 103(a) rejections of  
claims 1 and 10 are unsupportable under Olson in view of the requirements of MPEP  
706.02(j).

1        Sendor et al. is directed to sheets of media (i.e., paper), to which a layer of  
2 thermoplastic resin is applied, so that individual sheets of (thereafter) printable media  
3 can be thermally “welded” together (Page 3, lines 21-24; Page 1, lines 59-58; etc. of  
4 Sendor et al.).

5        In fact, the bulk of the disclosure by Sendor et al. is directed to various methods  
6 and apparatus for performing a “welding” (i.e., page joining) function, wherein Sendor et  
7 al. provide little teaching as to the formulation of the thermoplastic resin. The only  
8 statement provided with Sendor et al. is that the coating results in “printable and  
9 weldable paper” (Claim 1 of Sendor et al.). As a result, Sendor et al. inherently teaches  
10 that any printing or imaging occurs after the coating of Sendor et al. is applied to the  
11 paper (or other media). In any case, Sendor et al. is completely silent in regard to: 1)  
12 protecting print or imaging underlying a transparent coating against intrusive binding or  
13 damage from environmental elements; or 2) the fusing or partial fusing of at least one  
14 sheet of media to another sheet of media after the printing and the protective coating  
15 have been sequentially provided, respectively.

16        Sendor et al. fail to provide any motivation or reasonable expectation of success  
17 for applying a transparent protective coating overlying an image-bearing sheet of media,  
18 wherein the transparently coated and *protected* sheet of media is then energy-bindable  
19 to another sheet of media. Sendor et al. is directed to solving a different problem –  
20 namely, providing a coated, heat-fusible sheet media that is capable of being printed  
21 upon at some later time.

22        Therefore, one of skill in the art would not consult Sendor et al. in order to solve  
23 the problems addressed by the present invention, as Sendor et al. fail to provide any  
24 motivation toward, or reasonable expectation of success for, the invention as  
25 respectively recited by instant claims 1 and 10. Thus, the respective 103(a) rejections of  
claims 1 and 10 are unsupportable under Olson in view of the requirements of MPEP  
706.02(j).

1 The Examiner is further referred to MPEP 2143.01, which recites as follows:

2 "If [a] proposed modification would render the prior art unsuitable  
3 for its intended purpose, then there is no suggestion or motivation to make  
4 the proposed modification." *In re Gordon*, 733 F.2d 900, 221 USPQ 1125  
5 (Fed. Cir. 1984)

6 In this case, if any one or more of the respectively cited references (i.e., Olson,  
7 Osogoshi et al. and Sendor et al.) were combined with the teachings of admitted prior  
8 art, either of two outcomes is inescapably realized:

9 A) If the admitted prior art were modified in view of any of the cited references,  
10 the result would be a heat-fusible lamination that *opaquely obscures* the underlying  
11 imaging/text, wherein the underlying imaging/text is now *vulnerable to damaging*  
12 *environmental elements due to the inherent ink-porosity of the lamination*; or

13 B) If the cited prior art were modified in view of the admitted prior art, the logical  
14 result would be a transparent, heat-fusible coating applied to the sheet media *prior to*  
15 *any imaging*, wherein a laser or xerographic imaging process would subject the entire  
16 coating to a premature activation of the heat-fusible characteristic. Such premature  
17 activation of the heat-fusible coating would result in distortion of the substantially  
18 *overlying* imaging and/or gumming of, or damage to, the imaging system.

19 In either of the outcomes A) or B) above, the combining of the admitted art with  
20 the Examiner-cited references results in the rendering of either prior art (Examiner-cited  
21 or admitted) unsuitable for its intended purpose. Such an unsuitable modification of any  
22 reference is impermissible in view of MPEP 2143.01.

23 In summary, any 103 rejection that requires a combination of teachings of any  
24 one of Olson, Osogoshi et al. or Sendor et al. with the admitted prior art, so as to arrive  
25 at the present invention as recited by either of instant claims 1 and 10, is unsupportable  
in view of the requirements of MPEP 706.02(j) and MPEP 2143.01.

1 In view of the foregoing, the Applicant asserts that instant independent claims 1  
2 and 10 are allowable. It is axiomatic that claims 2-4, 6-9 and 25 that respectively  
3 depend from claim 1, and claims 11-13, 15-16 and 26 that respectively depend from  
4 claim 10, are also allowable by virtue of their dependence from respective allowable  
5 base claims.

6 Arguments in support of Claim 27

7 In regard to new independent claim 27, that claim includes the following  
8 teachings and limitations:

9 A method of binding a plurality of sheets into a bound sheet stack,  
10 comprising:

11 providing a first sheet and a second sheet;

12 printing on at least a portion of the first or second sheet, wherein  
13 the printing includes thermally fusing an imaging media to the first or  
14 second sheet;

15 following printing on the first or second sheet, applying a  
16 transparent protective coating to at least a portion of the first or second  
17 sheet; [...]

18 following overlaying the first and second sheets, applying a thermal  
19 binding energy to a binding region defined on the first and second sheets  
20 to thereby bind the sheets into a sheet stack, the binding region  
21 comprising a selected area of the transparent protective coating on the at  
22 least one sheet, the selected area being in contact with the other sheet.

23 (Emphasis added.)

24 As argued above, no one or combination of Olson, Osogoshi et al. and/or Sendor  
25 et al. teaches or suggests a respectively coated media that is in any way suitable for use  
in a laser printing or other electrophotographic imaging process, wherein a toner or  
similar imaging media is thermally fused to a paper or other sheet media. This is due to

1 the fact that, in accordance with any of the Examiner-cited references, such a thermal  
2 image-fusing step – which *must* be performed *after* the respective coating is applied to  
3 the underlying media – would prematurely soften (i.e., melt) the fusible coating of that  
4 media (i.e., paper). Such a softening of the coating would lead to gumming of, or  
5 damage to, the image-fusing apparatus and/or other associated components.

6 Thus, the teachings of Olson, Osogoshi et al. and Sendor et al. are respectively  
7 unsuitable for use in a laser printing or other electrophotographic imaging process.  
8 Therefore, none of the respectively cited references to Olson, Osogoshi et al., or Sendor  
9 et al., provides any motivation toward, or reasonable expectation of success for, the  
10 invention as recited by new claim 27. Therefore, new claim 27 is allowable.

11  
12 Summary

13 The Applicant believes that this response constitutes a full and complete  
14 response to the Office Action. Therefore, the Applicant respectfully requests  
15 reconsideration of claims 1-4, 6-13, 15 and 16, as well examination on the merits of new  
16 claims 25-27, in favor of timely allowance.

17 The Examiner is respectfully requested to contact the below-signed  
18 representative if the Examiner believes this will facilitate prosecution toward  
19 allowance of the claims.

20 Respectfully submitted,

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22 Date: October 12, 2004

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